

driving bauds for machinery, bed ticking, coarse and fine towelling, coarse flax and tow sheeting. For tents, drills, and the respective fabrics required for ordnance uses warps for carpets, horse-hair cloths and other cloths, as well as warps for silk and cotton velvets, fustians, corduroys, plushes, and a variety of other uses not here enumerated. There are but few, if any, of these articles supplied from materials produced in Ireland.

Extract of Report—(I have many others)—made upon the strength and merits of the New Sail Cloths, composed of alternate cloths, produced by my processes from Unsteeped Flax Straw, and the Phormium Tenax, or New Zealand Flax, as compared with the best known Manufacture of No. 1 Sail-cloth, made from the long of the finest bleached and prepared Riga Flax:—

Royal Dock Yard, Deptford,
Jan. 12th, 1832.

"A strip 1 inch in width and 2 feet in length of New Zealand Flax, twilled woven Sail Cloth, with a knot in the middle bore, but not at the knot, a weight of lbs. 624

"A ditto of best Scottish-made Canvass, knotted and in every respect similar, 561

"A Strip of Sail Cloth, made from Flax of Irish growth, for 1 inch in width and 2 feet in length, of the substance of No. 1, or heavy Sail Cloth, bore, carried, and broke at a weight of 834

"*Memorandum.*—In my belief the strongest Canvass ever known, it having actually borne, in the presence of six persons, eight hundred and thirty-four pounds avoirdupois.

"*Deptford Dock Yard, J. M.*"

N. B. The original document, from which this is copied, is signed by Mr. JOHN MORGAN, one of the Inspecting and Surveying Officers of Her Majesty's Dock Yard at Deptford, at the above date.

NOTE.—The chaff from one ton of unsteeped flax straw will average about 12 cwt.; it has been analyzed by Professor Way, who reports generally, that it is superior, in feeding value for cattle, to wheat straw, although perhaps inferior to good barley straw. The chaff from steeped flax is entirely deprived of this important property.

✍ In speaking of the waste of seed the Marquis of Downshire stated to the Royal Belfast Flax Society that on passing for miles through the country they were rolling the flax in the roads, in order that the seeds might be beaten out by horses or cart wheels; and it was quite in vain to draw their attention to the value of the seed, or the loss they sustained by so wasting it.

These respective manufactures do not of course come within the dominion of the agriculturists; but not so the raw material from which they are produced. To prove the merits of the fabrics manufactured, under my superintendence, from unsteeped flax, I beg to subjoin the following Report, made upon a sail composed of alternate

cloths of unsteeped flax and those made from the Phormium Tenax, or New Zealand Flax:—

Woolwich Royal Dockyard, Jan. 11, 1836.

"SIR,—In answer to your letter I beg to state that the foresail made from your preserved cloth has now nearly completed a service of FIVE YEARS, and has, during the whole of that period, been in constant use in every variety of weather; and, although this sail has met with the roughest possible treatment the crew could give it, and has been put by repeatedly in a wet state, with a view to excite mildew, still we possess no power to excite the slightest symptoms of premature decay in your cloth. (I have often been asked its price per yard.)

"I cannot help saying that I am greatly surprised at the extraordinary durability of this sail, and that during the whole period I have been in his Majesty's service (now about twenty-eight years) I have never met with sail cloth capable of bearing the same tests, or that has been the subject of so much curiosity and injury.

(Signed)

"WILLIAM ATKINSON, Master."

"M. J. J. DONLAN, Esq."

This new and important fibrous substance is applicable to all the uses to which Riga, Petersburg, Italian, Hungarian, and all other hemp and flax are now applied. The cultivation of this important produce (from which great Britain and Ireland are now nearly shut out) will open a new article of trade and commerce throughout the United Kingdom; but should the Growers meddle with, or torture the flax straw, by any commonplace Machinery, they will render it quite unfit for the service of Manufacturers. Upon this first process depends the value of the fibre, and if any false step be taken in it, the injury to the farmers will be incalculable, as the material so treated would be rendered unfit for manufacturing into the strong and important articles required for the general service of the country. I am warranted in stating that any offer by persons ignorant of the treatment of unsteeped flax straw to supply farmers with cheap machines for the purpose of reducing the bulk of the material, with the view to find sale for the fibre so produced, would be nothing less than a trap or snare, and pregnant with fraud and deception.

According to the rules which govern the patent laws, "No patent can be taken out for a principle until the party applying has invented some method for carrying the principle into effect; but, having invented this method, the patentee has the power of stopping every other mode of carrying the principle into effect."

The principle and the machinery for extricating the fibres from the stalks without steeping, cracking, or tearing, are my exclusive property. Thirty years of my time and mind, and as many thousand pounds of my money have been employed and absorbed in chemical and mechanical researches connected with flaxen fibrous substances, and if any infractions are committed upon me I shall endeavor to punish the aggressors. Great care has been taken to convey the first